

### **ABSTRACT OF THE DISCLOSURE**

The present invention relates to methods, reagents, and kits for assessing organ damage, such as damage due to ischemia reperfusion injury, in the course of a transplantation therapy and/or for assessing organ regeneration following transplantation therapy. The invention provides a method for determining an index of organ health in the course of transplantation therapy comprising measuring the expression level of peripheral-type benzodiazepine receptor (PBR) in the organ. Measuring the expression level of PBR is also useful for assessing the progress of organ regeneration in the course of transplantation therapy by comparing the index of organ health. The expression level of PBR may be used as a predictor of the outcome of transplantation therapy.